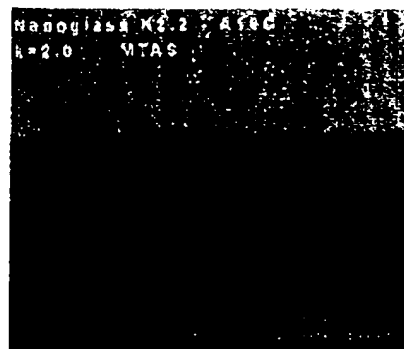


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(A)



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(B)



TITLE : METHOD FOR FORMING
HYDROPHOBIC POROUS SOG FILM

ABSTRACT : PROBLEM TO BE SOLVED: To provide a method for forming a hydrophobic porous SOG film that is an interlayer insulation film having a low relative permittivity and prevents water from coming into from the surface of the SOG film, to reduce moisture absorbency, where the relative permittivity does not change even if another interlayer insulation film is laminated on the SOG film by a CVD process or the like after forming the interlayer insulation film.

SOLUTION: An organic silane solution containing silane, water, and alcohol is used, and the organic silane is subjected to acid or alkali hydrolytic treatment and thermally treated in the presence of a surface active agent, through which a porous SiO_2 film is obtained. Then, any of SiO_2 film, SiN_x film, and SiO_xN_y film is formed on the surface of the porous SiO_2 film by the CVD method or sputtering, to cap the surface.

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